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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,906	03/30/2004	Solomon Trainin	P-6408-US	3188
49444	7590	12/11/2007		
PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			EXAMINER VO, DON NGUYEN	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 12/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/811,906

Applicant(s)

TRAININ ET AL.

Examiner

DON N. VO

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Acknowledgment*

1. This Office Action is responsive to the Amendment filed on 9/24/2007.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-10, 12-17, 19-22, 24-28 and 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu (US 7,106,803; art of record).

Regarding claims 1, 4, 7, 9, 10, 12, 15, 17, 19, 21, 22, 24, 27, 28 and 30, Hsu, as shown in figures 2-4, teaches a method and apparatus for communicating comprising physical layer controller configured to operate in plurality of modulation types. See also column 1, lines 36-63; column 3, lines 4-10 and lines 28-32; and column 5, line 16 to column 8, line 25.

Regarding claim 3, although Hsu does not particularly specify the first and second receivers as recited, but Hsu teaches two separated paths for two different types of modulation (figure 3). Therefore, the first path (310, 315, 320,

330, 335, 340, 345, 370) and the second path (310, 315, 320, 350, 355, 360, 370) can be interpreted as first and second receivers.

Regarding claims 5, 6, 8, 13, 14, 16, 20, 25, 26, 31 and 32, Hsu does not particularly teach the controlling frames or signals such as Request To Send, Clear To Send and Acknowledgement as recited. However, Hsu teaches the controlling signals for the physical layer such as ENABLE\_TX, ENABLE\_RX, etc... Although Hsu does not teach the same names as recited but the functions of the controlling signals are the same and those signals are required for controlling the operations of the physical layer. Therefore, Hsu anticipates the recitations of the claims.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 11, 18, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US 7,106,803) in view of Abhishek et al (US 2007/0118742).

Hsu teaches all subject matter claimed except for the specifying one of the modulation schemes is of OFDM type. However, Abhishek, from the same field of endeavor, teaches the physical layer operating with CCK and OFDM modulation scheme. See Abhishek: [0059]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the physical layer of Hsu by employing the OFDM modulation scheme as taught by Abhishek et al so that the physical layer of Hsu can also communicate using OFDM modulation scheme. Such modification will increase the communication capability of Hsu's physical layer.

### ***Response to Arguments***

7. Applicant's arguments filed 9/24/2007 have been fully considered but they are not persuasive.

Applicant traverses to the rejection by mainly arguing that the cited reference Hsu (US 7,106,803) fails to teach, generally, the limitations of operating in the first communication mode to receive the transmission of the first modulation type or the second communication mode to receive the transmission of the second modulation type and the autodetection mode to automatically

detect whether the incoming transmission is of the first modulation type or the second modulation type as recited in the independent claims 1, 9, 17, 22, and 27. However, the examiner is respectfully not agreed.

As taught at column 7, line 4 to column 8, line 25 and as shown in figure 3, Hsu teaches receiver of the physical layer comprising two demodulation pathways in which the first pathway includes elements (330), (335), (340), (345) and (370) to demodulate the incoming transmission of the first modulation type (combination of DBPSK/DQPSK) and the second pathway includes elements (350), (355), (360) and (370) to demodulate the incoming transmission of the second modulation type (only DQPSK). The receiver also has the capability of detecting (365) which type of the modulation scheme of the received signal and be able to select (DEMOD\_SELECT) which mode to be used for demodulating the received signal. Therefore, Hsu also teaches the capability of autodetection mode.

Based on the above rationale, it is still believed that limitations of claims 1, 9, 17, 22, and 27 are met by Hsu (US 7,106,803) and, therefor, the rejections of claims 1-32 are still maintained.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DON N. VO whose telephone number is (571) 272-3018. The examiner can normally be reached on Mon-Fri (9:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOHAMMAD GHAYOUR can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DON N. VO  
Primary Examiner  
Art Unit 2611